

may introduce contaminants into the fluid 32. Contaminants seriously degrade the performance of a thermosiphon.” (See Hambergen at column 4, lines 40 – 44). In order to avoid-trapping solder fluxes or additional materials, in the thermosiphon, Hambergen employs an intrinsically clean sealing technique, where the copper tube of the condenser 28 is hermetically sealed onto the boiler 26 by a shape memory ring 34A, or shrink ring. The shrinking squeezes the condenser 28 on to a small protruding region, or sealing land 27 on the outside diameter of the boiler 26. (See Hambergen at column 4, lines 49 – 60 and Figs 1 and 2). The present invention provides an end surface structure for a heat pipe, where lids 11 and 12 having interlocking members 111, 112 with flanges 112, 122 of which the diameters of the lid (includes the interlocking member and the flange) is larger than the interior diameter and is smaller than the exterior diameter of the pipe member. (page 3, lines 23 -27.) Because the thickness of the flanges are smaller than the thickness of the wall of the pipe member. (page 4, lines 5-6.) And during a welding process, “the flanges are melted first...the well (side surface) of the pipe member will not be damaged.”

In regards to Luo, Luo discloses a heat dissipating device and method for fabricating such device. Luo discloses a cover used in the heat dissipating device (see figures 2 and 13 , column 4, lines 45 – 55). But the lid of Luo doesn't disclose these specified features cited in the present invention.

“When a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references.” In re Rouffet, 149 F.3d 1350, 1355 (Fed. Cir. 1998). Stated another way, the prior art as a whole must “suggest the desirability” of the combination. In re Beattie, 974 F.2d 1309, 1311 (Fed. Cir. 1992) (internal quotation omitted); Winner Int'l Royalty Corp. v. Wang, 202 F.3d 1340 (Fed. Cir. 2000) (“Trade-offs often concern what is feasible, not what is, on balance, desirable. Motivation to combine requires the latter.” (emphasis added)). The source of the teaching, suggestion, or motivation may be “the nature of the problem,” “the teachings of the pertinent references,” or “the ordinary knowledge of those skilled in the art.” In re Rouffet, 149 F.3d at 1355.

Hambergen teaches away from using soldering or welding to connect components for a heat pipe. And Luo does discuss a capillary unit formed in said inner pipe surface of the pipe. But

the combination of Hambergen and Luo does not teach nor disclose the end surface structure disclosed in the present invention.

Therefore, Applicant respectfully submits that it would not be obvious to a skilled person in the heat pipe field to combine Hambergen with Luo. The standard for obviousness is described in a recent case, *In re Dance*, 48 USPQ2d 1635 (CAFC 1998), as follows.

To establish a *prima facie* case of obviousness based on a combination of the content of various references, there must be some teaching, suggestion or motivation in the prior art to make the specific combination that was made by the applicant. *In re Raynes*, 7 F.3d 1037, 1039, 28 USPQ2d 1630, 1631 (Fed. Cir. 1993); *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). Obviousness can not be established by hindsight combination to produce the claimed invention. *In re Gorman*, 933 F.2d 982, 986, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). As discussed in *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1985), it is the prior art itself, and not the applicant's achievement, that must establish the obviousness of the combination. *In re Dance*, 48 USPQ2d 1635, 1637 (CAFC 1998).

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Also as stated in MPEP §2143.01:

The mere fact that references can be combined or modified do not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)

Therefore, Applicant respectfully submits that there is no teaching, suggestion or motivation within the prior art to combine the prior art as the combination of features recited in Applicant's claims.

If the Examiner believes that a further telephonic interview will facilitate allowance of the claims, he is respectfully requested to contact the undersigned at (610) 446-5886. For the

reasons stated above, Applicants respectfully assert that the pending claims are in condition for allowance. Reconsideration and allowance of the pending claims are respectfully requested.

Respectfully submitted,

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